

Notice of Allowability**Application No.**

10/677,913

Examiner

MENG YAO ZHE

Applicant(s)

O'CONNOR ET AL.

Art Unit

2195

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/20/2008.
2. ☒ The allowed claim(s) is/are 1,3,6-13,16-25 and 27.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

/Li B. Zhen/
Primary Examiner, Art Unit 2194

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to the applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with Mr. Mark Watson on 8/7/2008.
3. Please replace claim 1 as follows:
 1. A method, comprising:
 - examining an instruction stream of a non-executing thread during execution of an executing thread;
 - identifying an instruction in the instruction stream;
 - identifying hardware resources associated with the instruction;
 - determining whether the hardware resource is available to the instruction of the non-executing thread; and
 - ~~enabling execution of the non-executing thread if the hardware resource is available to the instruction of the non-executing thread and~~
 - switching from execution of a thread executing an instruction with long or potentially long latency to execution of the non-executing thread if the hardware

resource is or will be available to the instruction of the non-executing thread.

4. Please replace claim 11 as follows:

11. A method, comprising:

determining a number of hardware resources unavailable to a pending threads
while executing a first executing thread, wherein the hardware resource is a functional
unit adapted to perform arithmetic and logic operations or to execute load and store
instructions; and

switching from the first executing thread to ~~the~~ a first pending thread if the
number of unavailable hardware resources to the first pending thread is less than the
number of unavailable hardware resources to a second pending thread.

5. Please replace claim 13 as follows:

13. An article comprising a storage medium having stored thereon
instructions, that, when executed by a computing platform, result in:

examining an instruction stream of a non-executing thread during execution of an
executing thread;

identifying an instruction in the instruction stream;

identifying hardware resources associated with the instruction;

determining whether the hardware resource is available to the instruction of the non-executing thread; and

~~enabling execution of the non-executing thread if the hardware resource is available to the instruction of the non-executing thread and~~

switching from execution of a thread executing an instruction with long or potentially long latency to execution of the non-executing thread if the hardware resource is or will be available to the instruction of the non-executing thread.

6. Please replace claim 16 as follows:

16. An apparatus, comprising:

a hardware resource operating as a functional unit to perform arithmetic and logic operations or to execute load and store instructions; and

a thread dispatch circuit to determine a number of hardware resources unavailable to pending threads while executing a first executing thread and switching from the first executing thread to a first pending thread if the number of unavailable hardware resources to the first pending thread is less than the number of unavailable hardware resources to a second pending thread. ~~if a hardware resource is available to a pending thread while executing an executing thread and switching from the executing thread to the pending thread if the hardware resource is available to the pending thread.~~

7. Please replace claim 25 as follows:

25. A system, comprising:

an antenna;

a processor coupled to the antenna, wherein the processor comprises:

a hardware resource operating as a functional unit to perform arithmetic and logic operations or to execute load and store instructions; and

a thread dispatch circuit to determine a number of hardware resources unavailable to pending threads while executing a first executing thread and switching from the first executing thread to a first pending thread if the number of unavailable hardware resources to the first pending thread is less than the number of unavailable hardware resources to a second pending thread. ~~if a hardware resource is available to an instruction of a non-executing thread during execution of an executing thread and switching execution from the executing thread to the pending thread if the hardware resource is available.~~

8. Please cancel claims 2, 14, and 26.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MengYao Zhe whose telephone number is 571-272-6946. The examiner can normally be reached on Monday Through Friday, 10:00 - 8:00 EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's

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supervisor, Meng-Ai An can be reached at 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

/Li B. Zhen/

Primary Examiner, Art Unit 2194